

REMARKS/ARGUMENTS

In the Office Action mailed November 13, 2008, claims 1-7, 11-15 and 17-22 are rejected and claims 1-10, 13 and 18 are objected to. Additionally, the specification and the drawings are objected to.

In response, claims 1-10, 12-15, 17, 18 and 20-22 have been amended. Additionally, new claim 23 has been added and claim 11 has been canceled. Applicant hereby requests reconsideration of the application in view of amended claims, the new claims and the below-provided remarks.

Allowable Subject Matter

Applicant appreciates the Examiner's review of and determination that claims 8-10 recite allowable subject matter. In particular, the Office Action stated that claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

At this time, Applicant chooses not to rewrite claims 8-10. Instead, Applicant respectfully asserts that the pending claims are allowable based on the claim amendments and the remarks below.

Objection to the Specification

The Office Action suggests that various sections of the specification should be labeled with the appropriate section heading. Applicant notes that the section headings are not required in the guidelines set forth in the MPEP and, hence, Applicant respectfully declines to amend the specification to include the indicated section headings.

Objections to the Drawings

The Office Action states that Figures 1-3 should be designated by a legend, such as "Prior Art." The current application is a U.S. National Stage application. The drawing requirements for U.S. National Stage applications are identified in MPEP 1825 and labeling of figures as "Prior Art" is not required (see PCT Rule 11.11). Further, MPEP 1893.03(f) states that "[t]he USPTO may not impose requirements beyond those imposed

by the Patent Cooperation Treaty (e.g., PCT Rule 11).” In view of the above, Applicant respectfully asserts that labeling Figures 1-3 as “Prior Art” is not required in the current application. As a result, Applicant respectfully requests that the objections to the drawings be withdrawn.

Claim objections

Claims 1-10, 13 and 18 are objected to. In particular, claims 1-10 are objected to because proper article is required before the term “apparatus.” In response, claim 1 has been amended to replace the term “apparatus” with the term “An apparatus.” Additionally, claims 2-10 have been amended to replace the term “apparatus” with the term “The apparatus.”

The Office Action states that the “apparatus” and the “receiver” at claim 1, lines 1 and 2 are the same device. Applicant respectfully disagrees. Fig. 4 of Applicant’s specification illustrates a frame format decoder (22) and a training sequence generator (24). The frame format decoder (22) and the training sequence generator (24) of Fig. 4 are not a receiver. Thus, the “apparatus” and the “receiver” at claim 1, lines 1 and 2 are not the same device. Additionally, claim 1 has been amended to remove the limitation “a receiver.”

The Office Action suggests that the term “plurality” at claim 1, line 7 and claim 3, line 3 should be replaced with the term “polarity.” In response, claims 1 and 3 have been amended to replace the term “plurality” with the term “polarity.”

Claim 4 is objected to because the term “a corresponding descrambler” is used when there is no previous limitation to a “scrambler.” In response, claim 4 has been amended to replace the term “a corresponding descrambler” with the term “a descrambler.”

Claim 5 is objected to because the term “a corresponding despreader” is used when there is no previous limitation to a “spreader.” In response, claim 5 has been amended to replace the term “a corresponding despreader” with the term “a despreader.”

Claim 10 is objected to because “there is no input provided to the descrambler,” as stated in the Office Action. In response, claim 10 has been amended to include the limitation “wherein said data frame is applied to said descrambler.” Support for the

amendment is found in Applicant's specification at, for example, original claim 4. Additionally, the Office Action states that "the output of the scrambler is provided to the "modulator," the output of the modulator is provided to the data despreaders and the despreaders generate the training sequence." Applicant notes that page 5, lines 16-18 of Applicant's specification states that "Data output from the descrambling means mentioned above may be applied to scrambling means, modulating means and data spreading means, prior to being output as the training sequence."

Claim 13 is objected to under 37 C.F.R. 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 18 is objected to because the phrase "at least one receiver" suggests that such "at least one receiver" is provided in addition to the "receiver" recited in claim 1. In response, claim 11 has been canceled and claim 12 has been amended to recite "A decoder including said apparatus according to claim 1." Additionally, claim 13 has been amended to recite "A receiver including said decoder according to claim 12." Claim 18 has been amended to be dependent on claim 13.

Applicant respectfully asserts that the amendments to claim 1-13 and 18 overcome the claim objections. Thus, Applicant respectfully requests that the objections to claims 1-10, 13 and 18 be withdrawn.

Claim Rejections under 35 U.S.C. 112

Claims 1-3 and 11-14 are rejected under 35 U.S.C. 112. In particular, claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, claim 12 has been amended to recite "A decoder including said apparatus according to claim 1." Additionally, claim 13 has been amended to recite "A receiver including said decoder according to claim 12."

Claims 1-3 and 11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, the Office Action states that "a counter" of claim 1 does not seem to appear in combination with another recited element. As a result,

claim 1 is considered as a single means and held as “nonenabling.” In response, claim 1 has been further amended to recite “means for determining, when N consecutive bits having the same polarity or logic value have been counted by said counter, if said frame format is of said first or second type, depending on the polarity or logic value of said N consecutive bits, where N is an integer greater than 1” (emphasis added). Support for the amendment is found in Applicant’s specification at, for example, original claim 20, Fig. 4, and page 8, lines 23-28. As amended, “a counter” of claim 1 is in combination with the “means for determining” of claim 1. As a result, Applicant respectfully submits that amended claim 1 is not a single means, and therefore, should not be held as “nonenabling.” Claim 11 has been canceled.

In view of the claim amendments, Applicant respectfully requests that the rejections to claims 1-3 and 12-14 under 35 U.S.C. 112 be withdrawn.

Claim Rejection under 35 U.S.C. 101

Claims 20-22 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. In response, claim 20 has been amended to include the limitation “receiving a frame at the receiver.” Applicant respectfully submits that amended claim 20 is directed to statutory subject matter, because claim 20 recites a process tied to another statutory category, in particular a receiver, which places the claim squarely within the categories defined by 35 U.S.C. 101. Thus, Applicant respectfully requests that the claim rejections under 35 U.S.C. 101 be withdrawn.

Priority

The Office Action states that this application appears to claim subject matter disclosed in prior application No. PCT/IB04/50941, filed June 21, 2004, and that a reference to prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 C.F.R. 1.76), if applicant intends to rely on the filing data of the prior application under 35 U.S.C. 119(c), 120, 121, or 365(c).

The current application is a U.S. National Stage application submitted under 35 U.S.C. 371, of the international application No. PCT/IB04/50941. The note at the end of

MPEP section 1893.03(c) states that it is not necessary for the applicant to amend the first sentence(s) of the specification to reference the international application number that was used to identify the application during international processing of the application by the international authorities prior to commencement of the national stage.

Claim Rejections under 35 U.S.C. 103

Claims 1-7, 11-15, 17-20 and 22 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Chiu et al. (U.S. Pat. App. No.2003/0147374 A1, hereafter “Chiu”) in view of Tang et al. (U.S. Pat. No. 7,403,539, hereafter “Tang”).

As described above, claims 1-10, 12-15, 18 and 20 have been amended to overcome corresponding claim objections and claim rejections. Additionally, claims 1, 4-8, 10 and 12-15 have been further amended to remove reference numbers. Claims 1, 4 and 5 have been further amended to remove the term “received.” Claim 1 has been further amended to replace the term “comprises” with the term “comprising.” Claim 10 has been further amended to recite “a scrambler, a modulator and a data spreader.” Claims 14, 15 and 17 have been amended to replace the term “A receiver” with the term “The receiver.” Claims 21 and 22 have been amended to replace the term “A method” with the term “The method.”

Applicant respectfully submits that the pending claims are patentable over Chiu in view of Tang for the reasons provided below.

Independent Claim 1

Tang is cited for teaching the limitation “*determining, when N consecutive bits having the same plurality or logic value have been counted, if said frame format is of said first or second type, depending on the polarity or logic value of said N consecutive bits,*” as recited in original claim 1. The above-identified limitation of original claim 1 corresponds to the limitation “*means for determining, when N consecutive bits having the same polarity or logic value have been counted by said counter, if said frame format is of said first or second type, depending on the polarity or logic value of said N consecutive bits,*” as recited in amended claim 1.

Applicant respectfully asserts that Tang fails to teach the above-identified limitation as recited in amended claim 1. In particular, Tang fails to teach determining if a frame format is of a first type or a second type, depending on the polarity or logic value of the consecutive bits.

Tang teaches that predetermined preamble data includes strings of 8 consecutive 1's or 0's identifiable with 802.11/802.11b long preamble format or strings of 16 consecutive 1's or 0's identifiable with 802.11b's short preamble format (see column 10, lines 37-41). In other words, Tang teaches that the 802.11/802.11b long preamble format is identifiable by strings of 8 consecutive 1's or 0's and the 802.11b's short preamble format is identifiable by strings of 16 consecutive 1's or 0's. That is, Tang teaches that the number of consecutive 1's or 0's can be used to identify the 802.11/802.11b long and short preamble formats. However, Tang fails to teach that strings of consecutive 1's are enough to distinguish the 802.11/802.11b long preamble format from the 802.11/802.11b short preamble format. Tang also fails to teach that strings of consecutive 0's are enough to distinguish the 802.11/802.11b long preamble format from the 802.11/802.11b short preamble format. Thus, Tang fails to teach determining if a frame format is of the 802.11/802.11b long preamble format or the 802.11/802.11b short preamble format, depending on the polarity or logic value of the consecutive bits.

Because Tang fails to teach determining if a frame format is of the 802.11/802.11b long preamble format or the 802.11/802.11b short preamble format, depending on the polarity or logic value of the consecutive bits, Applicant respectfully asserts that Tang fails to teach the above-identified limitation as recited in amended claim 1.

Accordingly, Applicant respectfully asserts that Chiu in view of Tang fails to teach all of the limitations of claim 1. Thus, Applicant respectfully asserts that claim 1 is patentable over Chiu in view of Tang.

Dependent Claims 2-7, 12-15 and 17-19

Claims 2-7, 12-15 and 17-19 depend from and incorporate all of the limitations of the independent claim 1. Thus, Applicant respectfully asserts that claims 2-7, 12-15 and 17-19 are allowable at least based on an allowable claim 1.

Independent Claim 20

Claim 20 includes similar limitations to claim 1. Because of the similarities between claim 1 and claim 20, Applicant respectfully asserts that the remarks provided above with regard to claim 1 apply also to claim 20. Accordingly, Applicant respectfully asserts that Chiu in view of Tang fails to teach all of the limitations of claim 20. Thus, Applicant respectfully asserts that claim 20 is patentable over Chiu in view of Tang.

Dependent Claim 22

Claim 22 depends from and incorporates all of the limitations of the independent claim 20. Thus, Applicant respectfully asserts that claim 22 is allowable at least based on an allowable claim 20.

Claims 8-10 and 21

Applicant notes that claims 8-10 are objected to and rejected under 35 U.S.C. 112. Additionally, Applicant notes that claim 21 is rejected under 35 U.S.C. 101. Claim amendments have been made to overcome the above-identified claim objections and claim rejections. Thus, Applicant respectfully asserts that claims 8-10 and 21 are in condition for allowance.

New Claim 23

New claim 23 has been added. Support for claim 23 is found in Applicant's specification at, for example, the paragraph between page 8, line 29 and page 9, line 2. Claim 23 depends from and incorporates all of the limitations of the independent claim 1. Thus, Applicant respectfully asserts that claim 23 is allowable at least based on allowable claim 1. Additionally, claim 23 recites "*wherein N is equal to 7.*" Applicant respectfully asserts that Chiu in view of Tang does not teach "*wherein N is equal to 7,*" as recited in claim 23.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

/mark a. wilson/

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Mark A. Wilson
Reg. No. 43,994

Wilson & Ham
PMB: 348
2530 Berryessa Road
San Jose, CA 95132
Phone: (925) 249-1300
Fax: (925) 249-0111